

THE GENUS *PASSALOBIA* LOMBARDINI, 1926, WITH
DESCRIPTION OF A NEW SPECIES
(ACARINA: DIARTHROPHALLIDAE)¹

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The genus *Passalobia* was erected by Lombardini (1926) for a new species, *Passalobia quadricaudata*, taken from under the elytra of a passalid beetle from Brazil. Lombardini (1938a, 1938b, 1951) later added the following species, all based on nymphs, to this genus: *duodecimpilosa*, 1938, *major*, 1938, and *peritrematica*, 1951. Womersley (1961) moved *duodecimpilosa* to *Diarthrophallus* Trägårdh and erected a new genus, *Passalana*, for *peritrematica* leaving only two species, *quadricaudata* and *major*—both from passalid beetles from Brazil—in *Passalobia*. In this paper we are describing a new species of *Passalobia* taken from a small number of alcohol preserved passalid beetles from Costa Rica.

***Passalobia* Lombardini, 1926**

Lombardini, G. 1926. *Boll. Soc. Entom. Ital.* 63: 158, figs. 1–2.

Womersley, H. 1961. *Trans. Roy. Soc. S. Australia* 84: 35.

Womersley (1961) redescribed this genus and included a key to the species. The genus is distinct in having the tectum helmetlike with an apical spike, dorsum with one (subposterior) pair of long simple setae and the elongate body slightly constricted behind coxae IV.

***Passalobia dubinerae*, n. sp.**

(Fig. 1A–K)

The female is distinct from *quadricaudata*, the only known female, in that the perigenital ring is triangular in shape and completely posterior to coxae IV whereas in *quadricaudata* the perigenital ring is oval and extends to the middle of coxae II. The separation of these adults from *major* must await description of the adult of *major*. Although the nymphal stage described for *major* and *quadricaudata* was not indicated, it appears to be the deutonymph for both. If so, the following combination of characters are distinctive for the deutonymph of the new species: Idiosoma approximately three times as long as area from coxae I to IV; para-anal setae shorter than posterior dorsal setae; dorsal setae arising from the integument posterior to the dorsal plate.

FEMALE. Idiosoma elongate, 626 μ long, constricted behind legs IV, 193 μ at greatest width anterior to coxae IV, 101 μ at narrowest part of constriction, 123 μ at greatest width posterior to constriction (measurements are the average

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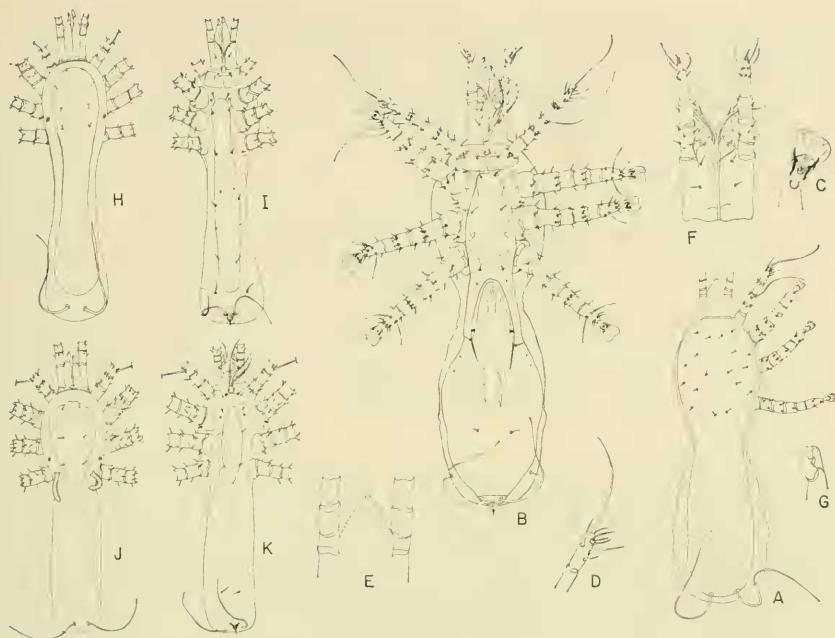


Fig. 1. *Passalobia dubinerae* n. sp. Female: A, dorsum; B, venter; C, ventral view of caruncle III; D, dorsal view of tarsus I; E, tectum; F, ventral view of gnathosoma; G, chelicera. Deutonymph: H, dorsum; I, venter. Protonymph: J, dorsum; K, venter.

of 10 specimens). *Dorsum* (fig. 1A). A single plate covering most of dorsum, plate constricted behind legs IV, posterior to constriction widens slightly; integument visible around all margins of plate; 1 pair of long simple forwardly curving setae arising from posterior margin of plate, other setae on plate consisting of 9 pairs of very minute simple setae (setae smaller in relation to body size than shown in fig. 1A) in area above coxae; 1 pair of pores near posterior margin of plate; plate without reticulations. *Venter* (fig. 1B). Coxae I forming a V medially, the anterior margins not touching; 1 pair of pores in integument anterior to base of coxae. Sternal, endopodal, metasternal and ventral plates coalesced, 550 μ long, 88 μ wide at level of coxa IV, expanding behind genital opening to 174 μ wide; extending posteriorly to and in contact with anal plate; coalesced plate bearing 3 pairs of pores and 5 pairs of small simple setae; location of pores—2 pairs just posterior to genital opening, 1 pair at anterior level of genital opening, 1 pair between coxae II and III, 1 pair at posterior margin of coxae IV, 1 pair midway between genital and anal opening and 1 pair at posterior margin of genital opening. Anal plate small, triangular shaped; separated from genital plate by a suture; anal setae simple, para-anals long, capitate at tip, post-anal no longer than length of anal opening. Genital opening surrounded laterally and anteriorly by perigenital ring; anterior margin of ring well posterior to coxae IV; genital plate tongue-shaped, bearing striaelike marks medially. Integument visible lateral

Table 1. Leg chaetotaxic formulae of deutonymph-female of *Passalobia dubinerae* n.sp. Total number of setae only given for tarsi.

Leg	Segment					
	Coxa	Trochanter	Femur	Genu	Tibia	Tarsus
I	$\frac{0}{2}-1$	$\frac{00}{1}-1$	$\frac{21}{11}-1$	$\frac{11}{00}-1$	$\frac{01}{11}-1$	5
II	$\frac{0}{1}-0$	$\frac{00}{11}-1$	$\frac{22}{11}-1$	$\frac{11}{00}-1$	$\frac{01}{11}-1$	11
III	$\frac{0}{1}-0$	$\frac{10}{10}-1^A$	$\frac{21}{11}-1^C$	$\frac{11}{00}-1$	$\frac{01}{11}-1$	11
IV	$\frac{0}{0}-0$	$\frac{10}{10}-1^B$	$\frac{21}{11}-1^D$	$\frac{11}{00}-1$	$\frac{01}{11}-1$	11

Protonymph: ^A $1\frac{10}{10}0$; ^B $1\frac{10}{10}0$; ^C $1\frac{21}{10}1$; ^D $1\frac{20}{00}1$.

of plate behind coxae IV and bearing 1 pair of simple, short setae near posterior of body. Peritreme dorsolaterally, at level of coxa III, approximately half width of coxa in length, no peritremal plate seen. Tritosternum bearing 2 spined lacinae; a pair of simple setae flanking base. *Legs*. Setae simple, all short except for a pair of longer setae on tarsi II-IV and a long whiplike seta on dorsum of genu I and tip of tarsi I. Chaetotaxy formulae given in Table 1. Pretarsi II-IV each bearing a large padlike caruncle and a pair of sclerotized T-shaped claws (fig. 1C), each claw attached to the caruncle by the middle bar of the T with the cross bar, which runs parallel to the caruncle, terminating at each end in a sharply pointed claw; distal to the attachment of each claw the caruncle bears a thickened padlike, claw-shaped structure. Posterodorsally tarsus I bears a subterminal 3-tined clawlike structure (fig. 1D). *Gnathosoma* (fig. 1E-G). Tectum (fig. 1E) with a ventral groove—appearing as a longitudinal strip; margin smooth. Internal mali long, extending to middle of tibia, bearing centrally a thickened supporting structure; lateral and medial of supporting structure mali is membranous, lateral margin scalloped, medial margin bearing 2 spinelike projections. Venter of gnathosoma bearing only 3 pairs of setae, relative lengths as shown, internal posterior rostral setae absent; deutosternal groove present but without teeth. Palpal setae simple; all short except for 2 longer setae on distal margin of tibia and 1 on tarsus; tarsus bearing a thickened spinelike terminal setae. Chelicerae chelate, well sclerotized; movable digit with 1 strong tooth, fixed digit with 2 teeth (fig. 1G).

DEUTONYMPH. Idiosoma 540 μ long, 115 μ wide (average of 2 specimens); constricted behind coxae IV. *Dorsum* (fig. 111). Single dorsal plate 457 μ long, following general contour of body, constricting to 48 μ and expanding posterior of constriction to 90 μ ; not extending to margins of idiosoma nor to posterior margin of body; 4-5 pairs of minute setae (relative size smaller than illustrated) above coxal region; integument bearing 1 pair of long simple setae posterior of dorsal plate. Stigmata dorsolateral above coxae III, visible dorsally. *Venter* (fig. II). Coxae I meeting medially. Single clongate plate 403 μ long, 48 μ at greatest width behind coxae IV, extending posteriorly almost to anal plate; bearing 4 pairs of setae and 2 pairs of pores positioned as shown; 2 pairs of setae—1 pair anterior

and I posterior—off plate; relative lengths of setae as shown; 1 pair large pores in integument medial of coxae II. Anal plate rounded; anal setae simple, para-anals long, length of post-anal about equal to length of anal opening. Tritosternum as in female. *Legs*. Chaetotaxy as in female. Length of legs II–IV: II, 195 μ ; III, 183 μ ; IV, 185 μ . *Gnathosoma* of same general characteristics as described for female.

PROTONYMPH. Idiosoma 453 μ long (average of 5 specimens); weakly constricted behind coxae IV. *Dorsum* (fig. 1J). Dorsal podosomal plate only; plate 168 μ long, 93 μ wide; shape as shown; integument visible around margin of plate; bearing 4 pairs of minute setae (relative size of setae much smaller in relation to body than shown). Posteriorly idiosoma bearing 1 pair of long simple setae. A pair of peritremes (?) arising from the dorsum near the posterior margin of the dorsal plate (these structures are free of the body and appear to connect to the stigmata which are dorsolateral in position; similar structures were not seen in the deutonymph or female.) *Venter* (fig. 1K). Plate 133 μ long, 35 μ at greatest width; bearing 2 pairs small simple setae positioned as shown. Integument bearing 1 pair small setae just posterior to coxae I and a slightly larger pair near posterior of body; 2 pairs of pores—1 pair anterior to coxae I, second pair at level of coxae II. Anal plate not well sclerotized; bearing 3 simple setae, para-anals long; length of post-anal seta about equal to length of anal opening. A pair of simple setae at base of tritosternum; laciniae as in female. *Legs*. Chaetotaxial deviations from adult discussed below; lengths of legs II–IV as follows: II, 180 μ ; III, 167 μ ; IV, 155 μ . *Gnathosoma*. Hypostomal process, corniculi and ventral hypostomal setae of general facies of female.

Male unknown.

LEG CHAETOTAXY. The chaetotaxial formula following Evans (1963) is given in Table 1 for the deutonymph-female. Of particular interest, compared to other diarthrophallids and mesostigmatic mites, is the loss of the posterior seta on coxae II, III, and IV.

The protonymphal leg chaetotaxy is the same as that of the deutonymph-female except for the absence of the following setae: trochanter III and IV—pl of each segment missing; femur III—pv₁ missing; femur IV—av₁, ad₁ and pv₁ missing.

Described from a series of 10 females, 2 deutonymphs and 5 protonymphs. Holotype (female) data: San Vito, Costa Rica; 11–II–1965; M. V. Truitt, coll.; from passalid beetle, genus *Publius*. All females, deutonymphs and 3 protonymphs with same data. Two protonymphs with same data except collected from passalid beetle of genus *Passalus*. Holotype, three female paratypes, one deutonymph and 2 protonymphs deposited in U. S. National Museum, Washington, D. C. Remaining material in collection of Department of Entomology, University of Georgia, Athens, Georgia.

Remarks. The free peritremelike structure of the protonymph is unusual. Free peritremes occur in *Passalana peritrematica* (Lamb.) which is known only from the nymphal stage. Neither Lombardini nor Womersley indicated which nymphal stage was represented. From the ventral chaetotaxy it appears likely the specimen was a protonymph. The description of additional species of *Passalobia* would

answer the question of whether all protonymphs of this genus have similar peritremelike structures and, if so, should *Passalana* retain separate generic standing.

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NEW GENERA AND SPECIES OF NEOTROPICAL BLISSINAE (HEMIPTERA: LYGAEIDAE)¹

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During the course of recent revisional work on the Chinch Bug subfamily Blissinae we have described and treated three new genera, *Patritiodemus* (Slater and Ahmad, 1968), *Praetorblissus* (Slater, 1966) and *Reticulatodemus* (Slater and Wilcox, 1966). In the present paper we describe an additional new species in each of these genera from specimens which have become available since the original publication of the new genera, describe an additional South American genus *Caveloblissus*, and comment upon the hitherto unknown macropterous form of *Heteroblissus anomilis* Barber.

Caveloblissus, n. gen.

Body subelongate, robust, nearly parallel sided; head and anterior pronotal lobe above strongly shining, posterior pronotal lobe from anterior margin of transverse impression to and including entire humeral area and scutellum dull pruinose, dividing line on pronotum between anterior shining and posterior pruinose areas

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